ESP Safety’s Vector is a state-of-the-art field control unit that performs as an integrated control terminal and display for ESP Safety’s toxic and/or combustible gas detectors. The Vector can operate as a stand-alone display for a variety of ESP Safety’s detectors which can be remotely located up to 500 feet away. A sensor head can also be attached directly to the display housing to produce a unified detector/display unit.

**Key Features**
- Configurable to control & monitor up to 2 detectors
- A vivid, 2.7” (diagonal) 128x64 pixel resolution, OLED screen simultaneously displays a wide range of data including gas concentrations, alarm levels, faults and operational modes.
- Analog 4-20 current loop w/ HART, Digital RS-485 Modbus RTU and 4 relays are standard data communication channels of the VECTOR FCU
- Event log is stored in on-board memory and is accessible via RS-485 Modbus RTU
- Operating Temp Range of -58°F to +167°F (-50°C to +75°C)
- SIL certification by independent 3rd party agency (pending)
- 316 Stainless Steel construction, explosion-proof housing, Class 1, Division 1
- Non-Intrusive, on-site detector calibration via a HART Field Communicator or Magnetic Wand

**Applications**
- Offshore platforms
- Land rigs
- Shipping tankers, freighters, and other vessels
- LNG/LPG processing & storage facilities
- Oil & gas refineries
- Petrochemical plants
- Gas & electric utilities

**Additional Features**

**Display:**
- Non-intrusive operator interface is easily achieved by contacting a magnetic wand with the glass housing cover and accessing the intuitive, menu-driven programming
- Tri-color status LED indicates operational mode, fault & gas presence

**Control Terminal:**
- Two - Analog 4-20mA Signal Outputs
- Four - Direct Relay Outputs are standard
### SPECIFICATIONS

**VECTOR FIELD CONTROL UNIT & DISPLAY**

**Technical Specifications**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material</td>
<td>316 Stainless Steel</td>
</tr>
<tr>
<td>Conduit Connection</td>
<td>5 Conduit Entries, 3/4&quot; NPT</td>
</tr>
<tr>
<td>Dimensions</td>
<td>7.50&quot; x 5.60&quot; x 4.28&quot; (190.5mm x 142.24mm x 108.71mm)</td>
</tr>
<tr>
<td>Weight</td>
<td>12.8 lbs (5.8 kg)</td>
</tr>
<tr>
<td>Warranty</td>
<td>5 years</td>
</tr>
</tbody>
</table>

**Electrical Characteristics**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage</td>
<td>+24VDC Nominal (+18 to 32VDC)</td>
</tr>
<tr>
<td>Power</td>
<td>4.3 W, standby 5.3 W, during alarm 12.0 W with heater on (temp ≤ 30°C)</td>
</tr>
</tbody>
</table>
| Outputs                 | 1) Analog signal: 2x +4-20mA  
                          | 2) Digital RS-485 Modbus RTU  
                          | 3) HART communication port  
                          | 4) Three User Programmed Alarm Relays One Fault Condition Programmed Relay |

**Mechanical Characteristics**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humidity</td>
<td>0 to 100% relative humidity, non condensing</td>
</tr>
</tbody>
</table>
| Operating Temperature| -58°F to +167°F (-50°C to +75°C)  
                          | -76°F to +167°F (-50°C to +75°C), with heater enabled |
| Storage temperature | -76°F to +185°F (-60°C to +85°C)             |
| Ingress Protection  | IP67                                         |
| SIL Rating          | TBA                                          |

**Certifications**

- Class I, Division 1 Groups B, C & D
- Ex d IIC T4 Ta = -58°F to +167°F (-50°C to +75°C) IP66
- Ex d IIC T4 Ta = -58°F to +167°F (-50°C to +75°C) IP66

**Data Communication**

- Direct Relay
- RS-485 Modbus RTU
- 4-20mA
- HART

**Input Devices**

- Infrared Point Detector
- Plug-In Sensor
- Infrared Open Path Detector

**VECTOR**

Field Control Unit and Display

**POWER 24VDC**

- **Direct Relay**
- RS-485 Modbus RTU
- 4-20mA
- HART

**Annunciating Device**

**System Controller or DCS/PLC**

**Field Communicator**

**SGOES**

**PGU**

**TGAES**

**info@espsafetyinc.com**